3.14 RECREATION

3.14.1 Affected Environment

Outdoor recreation is an integral facet of the quality of life in the Pacific Northwest. Fifty-one million recreationists visited Washington state parks alone in 1996 (Burnett pers. comm). Many millions more visit community parks, fishing areas, national forests, and other recreational facilities. Because of this pervasive use, many people are easily exposed to disturbances in or near Washington=s recreational facilities.

This section discusses formally established recreation sites. Additional recreational uses, such as fishing, hiking, bicycling, and other activities, occur throughout the area. Fifty-seven public and private recreational facilities are located within 8 km (5 miles) of the pipeline corridor (OPL 1998) and were examined for possible impacts (Figure 3.14-1). The pipeline corridor would physically intersect four public, one semi-private, and one private recreational facility: Echo Falls Country Club (private), Cedar Falls Trail (public), Mount Si Golf Course (semi-public), John Wayne Pioneer Trail/Iron Horse State Park (public), Ginkgo Petrified Forest State Park (public), and Twin Falls State Park (public).

3.14.1.1 Camping Facilities

Five public camping facilities are located within 8 km (5 miles) of the pipeline corridor. These five campgrounds are on USFS land or Washington Parks and Recreation Commission facilities. The 294 campsites at these campgrounds provide recreational opportunities for 2,056 campers each day (Table 3.14-1).

3.14.1.2 Hiking, Equestrian, Mountain Bike, Snowmobile, and Cross-Country Trails

Sixteen facilities providing hiking and equestrian trails, mountain bike trails, snowmobile trails, and cross-country amenities lie within 8 km (5 miles) of the corridor. The trails are owned by various city, county, state, and federal agencies as shown in Table 3.14-2. All the trails listed in Table 3.14-2 are non-motorized.

A major trail in the proposed project corridor is the Iron Horse State Park/John Wayne Pioneer Trail. Its designation as a linear park by the State of Washington is significant and unique because it is only one of three such parks in the state. As a state park, additional state regulations govern its operation and use, flora and fauna receive additional protection and maintenance priority, and visitors must abide by more defining regulations than for a trail.

Table 3.14-1. Public Campgrounds Located within 8 km (5 miles) of Pipeline Corridor

Location No.*	Facility	Owner	Characteristics
34	Tinkham Campground	United States Forest Service	47 sites; 5 people per site
36	Denny Creek Campground	United States Forest Service	35 sites; 5 people per site
39	Crystal Springs Campground	United States Forest Service	25 sites; 6 people per site
40	Lake Easton State Park	Washington Parks and Recreation Commission	137 sites; 8 people per site
46	Ginkgo Petrified Forest State Park	Washington Parks and Recreation Commission	50 sites; 8 people per site

Note: Camping is not an established use of the Mesa Lake Access and Clark Pond Access. No facilities are maintained at either site (Mahoney pers. comm.).

*See Figure 3.14-1 for locations.

Table 3.14-2. Non-Motorized Trails within 8 km (5 miles) of Pipeline Corridor

Location No.*	Facility	Owner	Characteristics
1	North Creek Sports Field	City of Bothell	Trailhead
5	Lord Hill Park	Snohomish County	Scenic viewpoints, trails
15	Sandy Cove Park	City of Snoqualmie	Nature trail
17	Snoqualmie Centennial Trail	City of Snoqualmie	Black topped trail
18	Kimball Creek Nature Trail	City of Snoqualmie	Nature trail
20	Cedar Falls Trail	King County	Trail on old railroad right-of-way
21	Snoqualmie Valley Trail	King County	Trail on old railroad right-of-way
22	Preston-Snoqualmie Trail	King County	Trail on old railroad right-of-way
23	E. J. Roberts Park	City of North Bend	Trails
28	Mount Si Preservation Area	Washington Department of Natural Resources	Hiking, trails
31	Twin Falls State Park	Washington Parks and Recreation Commission	Trails
32	Iron Horse State Park and John Wayne Pioneer Trail	Washington Parks and Recreation Commission and U.S. Forest Service	Trail on old railroad right-of-way
33	Olallie State Park	Washington Parks and Recreation Commission	Trails
35	Asahel Curtis	United States Forest Service	Trails
37	Pacific Crest National Scenic Trail	United States Forest Service	Trail
40	Lake Easton State Park	Washington Parks and Recreation Commission	Trails

*See Figure 3.14-1 for locations.

3.14.1.3 Community Parks, Sports Fields, Interpretive Centers, and Preserved Lands

Eighteen community-oriented parks and other facilities are located within 8 km (5 miles) of the pipeline corridor. The city, county, state, and federal facilities listed in Table 3.14-3 provide a wide variety of recreational opportunities to the surrounding communities.

Table 3.14.3. Community-Oriented Recreational Facilities within 8 km (5 miles) of Pipeline Corridor

Location No.*	Facility	Owner	Characteristics
1	North Creek Sports Fields	City of Bothell	Sports fields
2	Maltby Regional Park	City of Monroe	Multipurpose sports fields
12	Fall City Community Park	King County	Baseball field, picnic tables, horse arena
13	Railroad Square	City of Snoqualmie	Interpretive displays, benches, gazebo, kiosk
14	Railroad Avenue Parkway	City of Snoqualmie	Open space, greenbelt
16	River View Park	City of Snoqualmie	Picnic tables, playground equipment, restrooms
19	Meadowbrook Farm	City of Snoqualmie, City of North Bend	Currently undeveloped, open space
23	E.J. Roberts Park	City of North Bend	Playgrounds, tennis courts, basketball court, horseshoe pit, trails, restrooms
24	Gardiner-Weeks Memorial Park	City of North Bend	Snoqualmie Valley Historical Museum, Mt. Si Senior Center, North Bend Chamber of Commerce, picnic tables, walking paths
25	William Henry Taylor Park	City of North Bend	North Bend railroad depot for Puget Sound and Snoqualmie Valley Historical Railway, ticket office, meeting rooms, restrooms
26	North Bend Athletic Complex	City of North Bend	Softball/baseball fields, youth baseball field, concession building, restrooms
27	Torguson Property	City of North Bend	Currently vacant
30	Si View Park	King County	Youth baseball fields, unimproved soccer fields, tennis courts, playground, swimming pool, gymnasium, classrooms, picnic tables, restrooms
44	Olmstead Place State Park	Washington Parks and Recreation Commission	Early homestead site, interpretive center and museum

Table 3.14.3. Community-Oriented Recreational Facilities within 8 km (5 miles) of Pipeline Corridor

Location No.*	Facility	Owner	Characteristics
46	Ginkgo Petrified Forest State Park	Washington Parks and Recreation Commission	Interpretive center, picnic tables, swimming, trails, and restrooms
47	Wanapum Dam Tour Center	Grant County PUD	Columbia River Historical Interpretive Center
52	Columbia National Wildlife Refuge	United States Fish and Wildlife Service	23,000 acres of channeled scablands of Columbia River Basin, wintering area for over 100,000 waterfowl, scenic viewpoints, fishing, hunting
54	Basin City Memorial Park	Franklin County	Picnic tables, playground equipment, horse arena

*See Figure 3.14-1 for locations.

3.14.1.4 Shoreline Access Points

Table 3.14-4 lists 26 shoreline access points located within 8 km (5 miles) of the pipeline corridor. These facilities provide recreational access for boat launching, fishing, swimming, and other activities.

Table 3.14-4. Shoreline Access Points within 8 km (5 miles) of Pipeline Corridor

Location No.[a]	Facility	Owner	Characteristics[b]
3	Echo Lake Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch
4	Devil's Lake Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch, fishing
6	Snoqualmie River Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch, fishing
7	Lake Fontal Access	Washington Department of Fish and Wildlife	Shoreline access, fishing
8	Lake Hannan Access	Washington Department of Fish and Wildlife	Shoreline access, fishing
9	Lake Margaret Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch, fishing
11	Langlois Lake Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch, fishing
15	Sandy Cover Park	City on Snoqualmie	Shoreline access
16	River View Park	City of Snoqualmie	Shoreline access
18	Kimball Creek Nature Trail	City of Snoqualmie	Shoreline access
29	Three Forks Park	King County	Shoreline access, passive recreation
33	Olallie State Park	Washington Parks and Recreation Commission	Shoreline access
34	Tinkham Campground	United States Forest Service	Shoreline access
36	Denny Creek Campground	United States Forest Service	Shoreline access
38	Keechelus Lake Access	United States Bureau of Reclamation/United States Forest Service	Shoreline access, non-restricted boat launch, fishing
39	Crystal Springs Campground	United States Forest Service	Shoreline access
40	Lake Easton State Park	Washington Parks and Recreation Commission	Shoreline access, non-restricted boat launch, swimming, fishing
41	Lavender Lake Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch
43	Yakima River Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch, fishing
46	Ginkgo Petrified Forest State Park	Washington Parks and Recreation Commission	Shoreline access, non-restricted boat launch, swimming, fishing

Table 3.14-4. Shoreline Access Points within 8 km (5 miles) of Pipeline Corridor

Location No.[a]	Facility	Owner	Characteristics[b]
48	Columbia River Access	Washington Department of Fish and Wildlife	Shoreline access, non-restricted boat launch
49	Nunnally Lake Access	Washington Department of Fish and Wildlife	Shoreline access, fishing
51	Lower Crab Creek Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch
55	Mesa Lake Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch, fishing
56	Clark Pond Access	Washington Department of Fish and Wildlife	Shoreline access, restricted boat launch, fishing
57	Sacajawea State Park	Washington Parks and Recreation Commission	Shoreline access, non-restricted boat launch, swimming, fishing

[a] See Figure 3.14-1 for locations.

[b] "Restricted boat launch" indicates there are size and/or power limitations on boat types that may be used at this site (Chaney pers. comm.)

3.14.1.5 Hunting

Eight official hunting and wildlife areas lie within 8 km (5 miles) of the corridor. Seven areas are administered by the Washington Department of Fish and Wildlife and include the Snoqualmie Valley Wildlife Area (Stillwater Unit) (10), the L. T. Murray Wildlife Area (42), the Quilomene Wildlife Area (45), the Crab Creek Wildlife Area (52), the Wahluke Wildlife Area (53), the Mesa Lake Access (55), and Clark Pond (56). The eighth area, the Columbia National Wildlife Refuge (52) is administered by the U.S. Fish and Wildlife Service. (See Figure 3.14-1 for the facility locations indicated in parentheses.)

3.14.1.6 Semi-Public Recreational Facilities

Six prominent semi-public recreational facilities are located within 8 km (5 miles) of the pipeline corridor. Two golf courses, Mt. Si Golf Course (segment 15), located west of the City of North Bend, and Echo Falls Country Club (segment 3), located in Snohomish are located within the study area. Four ski areas also lie within the study area: Hyak, Alpental, Ski Acres, and Snoqualmie Pass.

3.14.1.7 Supply and Demand Levels, Seasonal Use Levels, Closures, and Access

Usage of these park and recreation facilities is highest during the drier summer months, especially on weekends. During spring and fall, most use levels decrease due to changes in the weather. In the colder winter months, usage levels at area parks and recreation facilities decrease substantially, and it is not uncommon for some of the more remote facilities to remain unused for several weeks. Trails are used by cross-country skiers in areas where ski park lots or other parking is available. The ski areas experience a busy winter recreation season (skiing, snowshoe, snow play), in addition to a busy summer recreation season (hiking).

In 1996 there were 37,606 non-utility campers and 38,807 utility campers at the five campgrounds within the vicinity of the pipeline corridor (Table 3.14-5) (L. Schmidt, T. Schmidt, Burnett, Redman, Mahaney pers. comms.). Washington Parks and Recreation Commission also tracks the number of day users in Washington state parks. Ginkgo Petrified Forest State Park received 26 times more day users than campers; Lake Easton received 19 times more day users than campers (T. Schmidt, Burnett pers. comms.).

Table 3.14-5. Campground Supply and Demand Levels

Campground	Campers In 1996	Day Use Visitors In 1996
Tinkham Campground - USFS	4,392 Non-Utility Campers (open only 4 months)	Does not track
Denny Creek Campground - USFS	8,661 Non-Utility Campers (open only 4 months)	Does not track
Crystal Springs Campground - USFS	8,400 (open only 5 months)	Does not track
Lake Easton State Park - WA	15,866 Non-Utility Campers 15,578 Utility Campers	300,214
Ginkgo Petrified Forest State Park - WA	287 Non-Utility Campers 23,229 Utility Campers	618,925

Note: Utility campsites refer to campsites that provide sewage hookup service for camp trailers. Non-Utility campsites may provide water from several taps, but few other facilities. Camping is not an established use of the Mesa Lake Access and Clark Pond Access. No facilities are maintained at either site (Mahoney pers. comm.).

3.14.1.8 USFS Recreation Opportunity Spectrum Classifications, Standards, and Guidelines

The pipeline would extend through approximately 18 km (11 miles) of national forest land along the 370 km (230-mile) corridor. The USFS developed the Recreational Opportunity Spectrum (ROS) to provide direction for land management and recreation planning within the national forests. ROS classes are used to identify current recreation uses on USFS land and to help specify the type and management of activities planned for the future (Murphy, Skistead pers. comms.). For location of ROS classifications, refer to Figure 3.14-2.

The pipeline would cross through two national forests: Mt. Baker-Snoqualmie and Wenatchee. Two ROS classifications apply to areas traversed by the pipeline corridor: roaded natural and semi-primitive motorized. Table 3.14-6 describes the ROS classifications for the Mt. Baker-

Table 3.14-6. ROS Classification Descriptions

	Mt. Baker-Snoqualmie National Forest[a]	Wenatchee National Forest[b]
Rural	Site heavily modified. Some facilities designed strictly for comfort and convenience of users. Luxury facilities not provided. Facility design may incorporate synthetic materials. Extensive use of artificial surfacing of roads and trails. Vehicular traffic control usually obvious. Primary access usually over paved roads. Development density 3-5 family units per acre. Plant materials usually native. Interpretive services often formal or structured.	An area characterized by a substantially modified natural environment. Vegetation management and facility development is dominant. Here there is a moderate to high frequency of contact with other users in developed sites, on roads and trails, and on water surfaces. Many facilities are present to handle groups as well as individual users. Regimentation and managerial controls are numerous but largely in harmony with the natural environment.
Roaded natural	Site modification moderate. Facilities about equal for protection of site and comfort of users. Contemporary/rustic design of improvements is usually based on use of native materials. Inconspicuous vehicular traffic controls usually provided. Roads may be hard surfaced and trails formalized. Development density about 3 family units per acre. Primary access may be over high standard roads. Interpretive services informal, but generally direct.	All area predominantly natural appearing. Vegetation management and resource modifications are present but harmonize with the natural environment. A moderate opportunity exists for isolation and undisturbed activities. The area is located within **2** mile of better than primitive roads and railroads. There is a moderate to high probability of contact with other people on roads; low to moderate probability off roads and on trails. Onsite regimentation and controls are generally noticeable.
Semi-primitive motorized	Little site modification. Rustic or rudimentary improvements designed primarily for the protection of the site rather than the comfort of the users. Motorized access provided or permitted. Use of synthetic materials avoided. Minimum controls are subtle. Little obvious regimentation. Spacing informal and extended to minimize contacts between users. Primary access over primitive roads. Interpretive services informal, almost subliminal.	An area characterized by a predominantly natural or natural appearing environment. Here there is evidence of other users, but concentrations of users are low. There is a moderate probability of experiencing isolation and solitude. The area is located within **2** mile of primitive roads or trails used by motor vehicles, but not closer than **2** mile to roads of a higher standard than primitive. The area is at least 2,500 acres in size. Other people will be seen or encountered but not frequently. Onsite controls and regimentation will be present but subtle.

[a] Mt. Baker-Snoqualmie National Forest, Land and Resource Management Plan (USFS 1990a)
[b] Wenatchee National Forest, Land and Resource Management Plan (USFS 1990b)

Snoqualmie and Wenatchee National Forests. Most of the pipeline corridor within the USFS lands is located in the Iron Horse State Park/John Wayne Pioneer Trail ROW.

3.14.2 Environmental Consequences

3.14.2.1 Proposed Petroleum Product Pipeline

Construction Impacts

Impacts on Recreational Facilities Avoided by Pipeline Corridor. Approximately 266 km (165 miles) of the pipeline would be constructed within or adjacent to existing utility or road ROW, including 34.0 km (21.1 miles) of the Iron Horse State Park/John Wayne Trail, and approximately 106 km (66 miles) would be constructed in new ROW. The pipeline corridor would avoid most of the public recreation facilities highlighted in the AAffected Environment@ section. For these facilities, impacts would be limited to dust, temporary construction noise, and disruption of the recreational experience. These impacts would last from 1 to 2 days depending on the rate of construction.

Unusual amounts of dust created by construction activities would have a minor/negligible impact to recreationists during their stay. To control dust during construction, the ROW would be watered periodically as necessary, gravel would be applied to access roads where traffic volume is high, and construction would be curtailed while winds are high. Depending on the recreationists' location, the duration of their stay, and the existing background noise, construction noise would have differing levels of impacts, from minor to major. The noise impacts to a recreationist at any one location would be temporary, during daylight hours, and last for 1 to 2 days.

Construction activities would be in direct contrast to the natural, forested or rustic setting that recreationists expect to find in recreational areas. Visual disturbance would occur in the active construction zone and adjacent areas used for staging. The active construction zone would be approximately 305 m (1,000 feet) long. Construction activity would proceed 610 to 3,048 m (2,000 to 10,000 feet) a day. The visual impacts of construction during this time would be brief but major.

Impacts on Recreational Facilities Intersected by Pipeline Corridor. The pipeline corridor intersects Twin Falls State Park. The pipeline would also be buried under the trail ROW on both the Cedar Falls Trail (about 11.9 km or 7.4 miles) and Iron Horse State Park/John Wayne Pioneer Trail (about 34.0 km or 21.1 miles) and through Ginkgo Petrified Forest State Park. Impacts to Ginkgo State Park are discussed under Columbia River Approach and Crossing Options.

The portion of Twin Falls State Park crossed by the pipeline is currently forested and undeveloped. These trails are very popular with recreationists in the Puget Sound region. They received 134,165 day use visitors (Burnett pers. comm.) in 1996 alone, and experience heavy use by hikers, mountain bikers, nature observers, and other recreationists with high visual sensitivity. Because of their narrow linear nature, these trails would experience major short-term impacts in

addition to the general impacts described above for the other recreational facilities (i.e., dust, noise, and visual disturbance).

Due to the constricted nature of the construction zone, vegetation along trails may be damaged during the stockpiling of soil along the trench. Because trails are usually comprised of exposed soil, the duration of the visual impacts should be short. Disturbed vegetation within the trail corridors is expected to recover in 1 to 2 years.

Trenching would physically restrict trail use and could temporarily block access to adjacent campgrounds and trailheads. There are some areas along trails where the disturbed area is wide enough, or where detours onto roadways are possible in areas where roadways immediately parallel trails, that recreationists could be allowed to continue without waiting. However, there are narrow places along trails where there is no space for detouring around the construction activities, and those places would be closed during construction. If construction activities require temporary trail closures, recreational users would be delayed for up to 1 hour, and then construction would stop while the recreational users were escorted through the construction area, much as is done with a roadway project. The Cedar Falls Trail and Iron Horse State Park/John Wayne Trail would be signed near access points to alert recreational users to the construction activity and the potential delays during temporary closures. OPL is in the process of developing temporary signage and notices with King County for the sections of the route that utilize the Cedar Falls Trail. The notices would be posted approximately 30 days before construction would start along the trail, and would inform trail users of the approximate dates of construction, areas of temporary trail closures, and detour routes if available. A similar system could be developed for the John Wayne Trail.

The pipeline would be buried in the Snoqualmie Tunnel. Construction within the tunnel could take up to 2 weeks from start to completion. During construction, it may be necessary to temporarily close the tunnel to recreational users. If so, the users would be delayed at either end of the tunnel for up to 1 hour, and then shuttled through the tunnel using golf carts or similar small transports equipped with bicycle racks. The tunnel would likely be closed to equestrian users during the 2-week construction period.

Impacts from Construction Worker Housing. Two Washington State camping facilities (Lake Easton and Ginkgo Petrified Forest State Parks) would experience major impacts during construction if workers stay in campgrounds as a result of OPL=s plan to house construction workers in trailers, campers, and other forms of temporary mobile housing at recreation facilities throughout the area. During the camping season, the demand for campsites at these locations ranges from 80 percent of capacity on weekdays to 100 percent of capacity on weekends. As shown in Table 3.14-7, the possible impact of campground use by construction workers ranges between 34 and 94 percent of capacity at these Washington state campgrounds. (L. Schmidt, T. Schmidt, Mahaney, Redman pers. comms.). If all workers are bussed to construction sites as stated by OPL, and not allowed to use campgrounds, impacts would be minor. The USFS prohibits the use of USFS campgrounds by construction workers working on USFS projects.

A potential negative effect of construction workers displacing tourists and recreationists could be experienced by businesses supported by those historic users (i.e., hotels, motels, stores). If construction workers displace tourists/recreationists in campgrounds and motels during construction,

some of that income would be lost because of reduced spending (see Socioeconomics). Construction workers' expenditures would replace some of this loss, but not all because of differing spending

Table 3.14-7. Campground Impacts

Campground	Number of Spaces Available	Limit of Stay	Number of Workers in Spread	Possible Percent of Impact*
Lake Easton State Park - WA	137 sites 8 people per site	10 days	375	34%
Ginkgo Petrified Forest State Park - WA	50 sites 8 people per site	10 days	375	94%

Note: Camping is not an established use of the Mesa Lake Access and Clark Pond Access. No facilities are maintained at either site (Mahoney pers. comm.).

* The percentage of impact is based upon the number of workers in the pertinent construction spread, divided by the total capacity of each campground.

patterns than tourists/recreationists.

Parking. Depending on the method of transport for the pipeline construction crews, the impacts on trailhead, campground, and other recreational facility parking could be major. If each construction team member chooses to drive a personal vehicle, crew automobiles could greatly exceed the parking capacity at each facility. This displacement of regular recreational users could encourage opportunistic parking in non-designated areas, and result in damage to the surrounding environment. To prevent undue disruption to recreationists' parking, OPL proposes to transport construction team workers to the construction site in buses or vans, although parking and pickup locations are not identified.

Sport Fishing. Because soil erosion would be minimized by BMPs (described in Appendix C), and stream access would not be limited, impacts to sport fishing would be negligible. However, sport anglers could experience temporary impacts from dust, noise, and degraded views during construction similar to the experience of other recreationists. See Section 3.7, Fisheries, for more information regarding fisheries.

Semi-Public Facilities. Construction of the pipeline would pass through two golf courses: Echo Falls Country Club and Mount Si Golf Course. Golf course use at Echo Falls varies throughout the year between 20 golfers per winter weekday and 200 golfers per summer weekend day (Joe pers. comm.). The alignment would enter the golf course in the existing BPA ROW through the rough. It would transition to the golf cart pathway to pass near course holes four and five. The alignment would transfer back to the BPA ROW to exit the golf course in the rough. All construction would either occur in the existing BPA ROW, located in the rough, or underneath the golf cart way. Construction on the Cedar Falls Trail would cross the Mount Si Golf Course. Golf course use varies during the year between five golfers per winter weekday and 400 golfers per summer weekend day (Campbell pers. comm.). At Cedar Falls construction would occur within the trail ROW.

The noise, dust, and construction view impacts to the golf course users at both golf courses would be similar to those discussed for trails. In addition, some interruption of golf course use could be expected during the brief (1- to 2-day) construction period. The golf course would remain open. Construction would either be limited to an easily circumnavigable area or would occur during the slow winter season.

Recreational Opportunity Spectrum Designations. Pipeline construction would not permanently remove recreational capacity from any of the recreational facilities under consideration. In addition, the type of available recreational experience on USFS land would not change as a result of the buried pipeline, and thus all ROS designations would remain the same. See Figure 3.14-2 for ROS designations.

Columbia River Approach and Crossing Options. As part of the proposal, the pipeline corridor would cross Ginkgo Petrified Forest State Park. (See Figure 3.14-3 for crossing options.) Recreationists using the park would experience major impacts during construction including dust, noise, and views of construction equipment. Disturbed vegetation should recover in 1 to 2 years. This would detract from the park setting expected by most recreationists. Recreationists at Wanapum Campground, at Ginkgo Petrified Forest State Park, would experience increased dust, noise, and views of construction depending on the location of the Columbia River crossing. In both areas, construction vehicles could create congested traffic flows in and out of the campgrounds. Any construction alternative in the park during periods of more active use (May through September) would be disruptive to the recreational experience.

Alternative routes that cross through the YTC would avoid impacts on recreational facilities in this portion of the corridor.

Operational Impacts. Operational impacts would be negligible to minor at all recreational facilities. The only impacts would include weekly aerial overflights and some annual vegetation management practices, such as cutting or spraying where allowed. Recreational impacts from a spill would be major if a river or established recreation area is impacted. Spills up to 1 percent of flow may not be detectable with monitoring equipment. For this reason, spills along trails and state parks would be detected by odor or visual discovery which would be a negative impact to the recreational experience. Cleanup could close facilities until repairs are completed. Aesthetic effects of a spill may remain after biological effects have recovered.

Cumulative Impacts. The pipeline would provide a cumulative beneficial impact from proposed improvements to trail facilities as part of the corridor restoration and maintenance, following pipeline installation. Other parts of the Iron Horse State Park/John Wayne Pioneer Trail are not currently improved and could be left in an improved condition with appropriate backfill, grading, and planting. No other cumulative impacts to recreation are anticipated.

3.14.2.2 No Action

There would be no impacts to recreation under the No Action Alternative because there would be no disruption of the recreational experience due to construction or operation of the pipeline. There would also be no cumulative beneficial impact from trail repair and upgrade during pipeline construction and maintenance.

3.14.3 Additional Proposed Mitigation Measures

No additional mitigation measures, beyond those already included as part of the project, are proposed for recreation. Suggested mitigation for worker housing impacts during construction is provided in Section 3.16, Socioeconomics.

LIST OF ACRONYMS

LIST OF CITATIONS